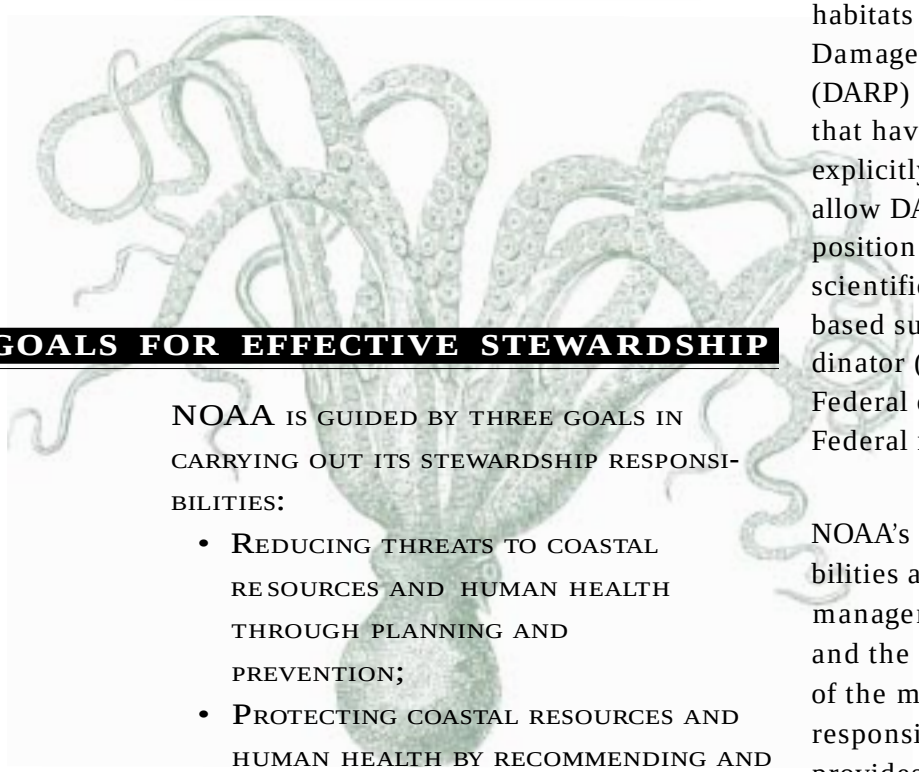
Steward of the Nation's Coastal Environment

WHAT ARE NOAA TRUST RESOURCES?

- **Commercial and recreational fishery resources;**
- **Anadromous species (fish, like salmon, that spawn in fresh water and then migrate to the sea);**
- **Endangered and threatened marine species and their habitats (sea turtles, for example);**
- **Marine mammals, including whales, dolphins, and seals**
- **Marshes, mangroves, seagrass beds, coral reefs, and other coastal habitats; and**
- **Resources associated with National Marine Sanctuaries and National Estuarine Research Reserves**



GOALS FOR EFFECTIVE STEWARDSHIP

NOAA IS GUIDED BY THREE GOALS IN CARRYING OUT ITS STEWARDSHIP RESPONSIBILITIES:

- REDUCING THREATS TO COASTAL RESOURCES AND HUMAN HEALTH THROUGH PLANNING AND PREVENTION;
- PROTECTING COASTAL RESOURCES AND HUMAN HEALTH BY RECOMMENDING AND IMPLEMENTING APPROPRIATE RESPONSE ACTIONS; AND
- RESTORING INJURED TRUST RESOURCES (SEE BOX).

NOAA's Coastal Stewardship

Every year, millions of gallons of oil and hazardous chemicals spill into coastal waters from vessels, wellheads, pipelines, and facilities across the nation. These discharges and releases can alter habitat, kill or injure important fish and birds, and reduce food supplies for aquatic life. Ecological impacts can persist for long periods of time over geographic areas large and small.

NOAA's prevention, preparedness, response, and restoration activities combat threats from marine transportation in coastal environments. Through its Office of Response and Restoration (OR&R), NOAA's National Ocean Service applies scientific information and objective analysis to reduce risks to coastal habitats and resources from spills. NOAA's Damage Assessment and Restoration Program (DARP) restores coastal and ocean resources that have been injured by spills. NOAA has explicitly separated these responsibilities to allow DARP to represent a strong advocacy position for NOAA resources while OR&R's scientific team provides objective, broadly based support to the Federal On-Scene Coordinator (OSC). The OSC is the pre-designated Federal official who coordinates and directs Federal response to spills.

NOAA's activities stem from many responsibilities associated with the protection and management of coastal and ocean resources, and the provision of services that aid safe use of the marine environment. NOAA is solely responsible for charting the nation's waters. It provides a team of scientists, led by the Scientific Support Coordinator, to coordinate and synthesize information for the OSC in marine and coastal spills. NOAA is a Federal natural resource trustee responsible for protecting and restoring marine and coastal

natural resources impacted by spills. NOAA's responsibilities for managing fisheries, marine sanctuaries, threatened and endangered species, and providing accurate weather predictions have produced a solid core of expertise that is applied to a broad spectrum of environmental problems. NOAA applies this expertise impartially to solve scientific and technical problems associated with prevention and response to spills. NOAA's expertise provides a sound scientific basis to fulfill its trustee responsibilities to assess and restore spill-related natural resource injury.

An Integrated Approach

As the nation's coastal steward, NOAA has developed a four-part approach to address discharges and releases. NOAA works in partnership with those responsible for coordinating and directing response and cleanup, those responsible for the release, and other affected parties. NOAA's approach to coastal stewardship encompasses prevention, preparedness, response and restoration.

PREVENTION...

NOAA works with others engaged in maritime activities at the local, state, and national level to support safe and efficient maritime navigation and the sound management and protection of valuable coastal and marine natural resources. As NOAA develops nautical charts and other products and services for the maritime community, it makes the information useful to spill responders and coastal managers as well. Integrating its missions improves NOAA's product and services, support, and efficiencies for both industry and government. For example:

- *In San Francisco Bay, NOS's real-time information about water levels, currents, and meteorological conditions provides commercial vessel operators with critical information to avoid accidents and increase the efficiency of their operations. This same real-time information is the basis for new oil spill response tools being developed for the Bay and is provided to coastal managers and scientists in a form useful in a variety of other applications.*
- *In Lower Cook Inlet, Alaska, NOS and the U.S. Coast Guard are working together to update nautical charts, improve aids to navigation, and consolidate sources of critical environmental data for real time access by vessel operators.*
- *In Puerto Rico and the U.S. Virgin Islands, NOAA is updating environmentally sensitive index maps and making them available in digital form to allow easy and inexpensive access for coastal managers, first responders and the general public.*

PREPAREDNESS...

NOAA maintains a team of multi-disciplined scientists dedicated to preparedness and response. Between spills, working on a daily basis with the Coast Guard, state response agencies, and industry, these scientists focus on the environmental aspects of contingency planning by:

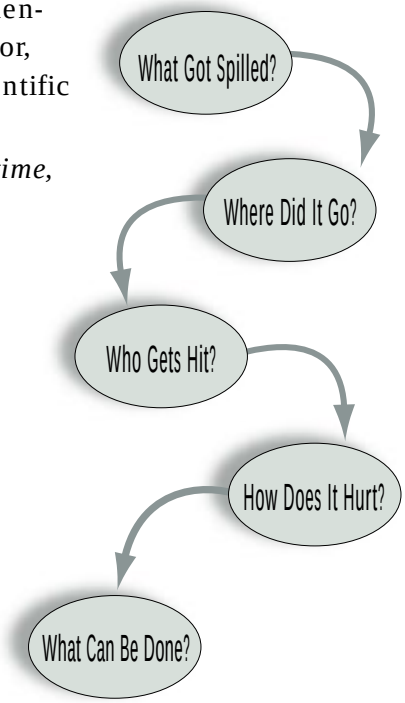
- *collecting and analyzing information on sensitive species and vulnerable habitats, and priority areas for protection;*
- *identifying cleanup measures for different habitats to minimize environmental harm;*
- *participating in drills to improve readiness;*
- *training other agencies and industry on the environmental considerations of spill response;*
- *developing tools and national guidelines to improve effectiveness in response.*

NOAA conducts pre-spill coordination with co-trustees and industry, including participating in spill drills and training, to improve the collection of injury data at spills. NOAA developed natural resource damage assessment regulations specifically for oil spills and supports the use of these regulations through a series of guidance documents and manuals. NOAA scientists and economists continue to develop new assessment and restoration methodologies and approaches for use in future spills.

RESPONSE...

NOAA provides critical scientific advice and coordination of scientific resources during a spill to support the On-Scene Coordinator, locating teams both at the Command Post and off-site. The Scientific Support Coordinators lead the on-site effort, providing:

- *the physical/chemical properties of oil and chemicals over time,*
- *analysis of the spill trajectory,*
- *the resource protection priorities,*
- *the use of different countermeasures,*
- *the assessment of shoreline impacts, and*
- *the consequences of different cleanup strategies.*



The on-scene response effort is supported by a full complement of biologists, chemists, geologists, oceanographers, and computer modelers who have access to large volumes of data and can analyze incident information away from the chaos of the response scene.

NOAA also conducts long-term studies of the effectiveness of cleanup recommendations in enhancing environmental recovery, including the effects of hot-water washing during the *Exxon Valdez* or the cutting of marshes during the *Julie N* in Portland, Maine.

In addition to NOAA's operational response capability, NOAA has a Rapid Assessment Program, with on-call scientists and economists ready to respond and initiate damage assessment studies. These individuals work closely with other Federal and state co-trustee agencies and technical representatives of the responsible party to collect perishable data and pursue assessments that will restore injured resources.

RESTORATION...

After evaluating the extent and magnitude of injury, NOAA determines actions needed to restore the injured resources. NOAA works with state, tribal, and other Federal trustees to develop a restoration plan that documents injury to natural resources and proposes alternatives for restoring them. Under OPA, responsible parties are liable for the cost of restoring the injured resources and services.

Responsible parties may elect to carry out the restoration themselves under trustee oversight or to fund the trustees to conduct the restoration. By working cooperatively with the party responsible for the incident and using the best available science, NOAA is often able to reach agreement without lengthy litigation, thereby more rapidly and cost-effectively achieving restoration of the injured resources. For example:

- *In the Mississippi River 'Birdfoot' Delta, Chevron Inc. created between 25 and 50 acres of new wetlands by constructing a river diversion. This restoration compensated the public for damage from a January 1995 oil spill from an inactive wellhead in Dixon Bay, Louisiana.*

- *Dutch Island Harbor has a new lobster reef, 13 acres of salt marsh have been restored at the Sachuest Point National Wildlife Refuge, two 100-acre quahog spawner sanctuaries have been established, and eelgrass restoration has been completed at numerous sites in Narragansett Bay. Funding for this restoration of over 250 acres of marine habitat in Rhode Island was provided by a settlement for the 1989 oil spill from the* World Prodigy *tanker.*
- *Off the southwestern coast of Mona Island, Puerto Rico, 6.8 acres of heavily injured coral reef were stabilized and restored following the grounding of the M/V* Fortuna Reefer. *Monies from an expedited settlement were used to reattach over 1,850 pieces of live elkhorn coral branches that had been broken off, stabilizing these dislodged coral fragments before the onset of the winter storm season and reducing long-term impacts to the marine ecosystem.*

Trustees use restoration monitoring programs to determine the effectiveness of the actions taken to restore the coastal and marine environment.

Toward Healthier Coasts

Each oil spill or hazardous chemical release offers unique challenges and problems. NOAA's flexible approach to building consensus and reaching cost-effective solutions has been highly effective. Since 1984, NOAA has been involved at more than 1,800 spills. In the last decade, major spill responses have included the 1989 *Exxon Valdez* in Prince William Sound; the 1992 *Santa Clara*; the 1994 *Morris J. Berman* spill off Puerto Rico; the 1995 Powell Duffryn chemical storage facility in Savannah; and the *North Cape-Scandia* spill off the Rhode Island coast; the barge *Buffalo 292* spill in Texas in 1996; and the 1997 *Kuroshima* spill near Dutch Harbor, Alaska; and the 1999 *New Carissa* spill in Coos Bay, Oregon.

Through involvement in the broader spectrum of activities associated with the maritime shipment and storage of oil and hazardous chemicals, NOAA actively carries out its stewardship responsibilities to protect and restore the marine and coastal environment. As a result of NOAA's efforts, the nation's coastal areas will have more productive and diverse habitat for fish and wildlife, cleaner water, and healthier ecosystems. NOAA looks forward to continuing to work in partnership with industry and other coastal managers to improve the health of the nation's coasts.

For additional information: visit the website:
http://response.restoration.noaa.gov
or call: 206/526-6317

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